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MANCHURIAN AGRICULTURE UNDER JAPANESE CONTROL . . . . .

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Japanese control of Manchurian agriculture has assumed two forms. The first, initiated shortly after the "incident" of 1931 - the occupation of the country by Japan - is Japanese colonization of Manchuria on a large scale. The second and more recent phase is the establishment of a stringent control over all aspects of Manchurian agricultural economy in order to enable Japan to get a large supply of foodstuffs as soon as possible and at the lowest possible price. So far neither program has achieved the expected results.

INTRODUCTION

Manchuria is a comparatively young agricultural region and promises to play an increasingly important part in the economy of the Far East. Until about the end of the nineteenth century the country was a primitive, sparsely settled agricultural and cattle-grazing region. Since then, however, the fertile soil, suitable climate, the laying of a network of railways, and the removal of all barriers against Chinese immigration have been responsible for the development of Manchuria into one of Asia's most important agricultural regions.

The industrialization of the country during the 1930's, so energetically fostered by Japan, has produced almost no change in its rural character. The recent program of expansion of agricultural production, as compared with the downward revision of the ambitious industrialization plans, serves to emphasize the importance of agriculture. Almost 80 percent of the total population is engaged in tilling the soil. Farming is geared to an export market, and the combined export value of raw and finished agricultural products accounts for approximately 60 percent (1938) of Manchuria's total export trade.

Important as Manchuria is now as a producer of agricultural products, it is the potential productive capacity of the region, with its estimated 42 million acres of uncultivated land, that plays an important part in the current plans of the Japanese to solve their own agricultural difficulties and to turn Manchuria into the granary of eastern Asia. This article is devoted principally to a discussion of the methods being applied by the Manchurian Government, in collaboration with and under the strict supervision of the Japanese, for the exploitation of the developed and undeveloped agricultural resources of Manchuria.

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Figure 1.-Map of Manchuria.

GENERAL JAPANESE AIMS

Japan's economic penetration of Manchuria following the "incident" of 1931 was rapid and widespread. The expansion of existing industrial undertakings and the establishment of new ones, many of them only on paper, proceeded unabated. During this time the Japanese manifested little active interest in agriculture except in the field of colonization. Only in 1937, year one of the China "incident," did the consideration of Manchuria's immediate and potential agricultural productivity become important. Interest deepened in subsequent years, primarily because of Japan's protracted war against China, the economic strain that accompanied it, and the food difficulties Japan has been experiencing in the past two years.

Another motive that whetted Japanese interest in Manchurian agriculture concerns the plans for a "New Order" under Japanese protection; an order known as "the greater East Asia sphere of co-existence and co-prosperity." For some time the nature of the "New Order" was not clearly defined; recently, however, Japan's former foreign secretary, Matsuoka, expressed its basic purpose in these words: "The white races must cede Oceania to the Asiatics." Oceania in turn was defined by his vice-minister as embracing not only British Malaya and the Netherlands Indies but Hawaii and New Zealand as well. Establishment of this order would be the culmination of the ambitious Japanese political and economic program. But the first step toward that objective is the establishment of an economic bloc composed of Japan, Manchuria, and China in order to attain the maximum degree of economic self-sufficiency within that bloc.

One of Manchuria's chief contributions to this program as a partner of the East Asian confederacy is to "fulfil her role as an agricultural country par excellence."[1] To implement the scheme, a conference between Manchurian and Japanese agricultural experts was held in Hsinking in May 1937 under the auspices of the Kwantung (Japanese) army command. The essential points agreed upon were as follows: "(1) the strengthening of the agricultural basis of the national economy, (2) adjustment of Japanese and Manchurian agricultural policies, (3) and advancement of the welfare of the farmers."[2]

When these vague points were later translated into action, it became clear that it was not the welfare of the Manchurian farmers with which Japan was concerned. On the contrary, Japan's aim was to foster Japanese agricultural settlements in Manchuria on a large scale, to induce the Manchurian farmers to raise their output as much as possible in the shortest possible time, and to secure that output at as low a price as they could. Before describing more specifically the twofold Japanese program for Manchuria, it may be desirable to state briefly some of the chief features of Manchurian agricultural economy.

CHARACTERISTICS OF MANCHURIAN AGRICULTURE

Physical Features

Manchuria (figure 1), covering an area of 437,000 square miles, is about equal in size to the combined areas of the Dakotas, Nebraska, Montana, and Wyoming. Its

[1] *Manchuria*, p. 468, October 1, 1940.
[2] *Ibid.*, p. 468.

population is estimated at 39 million. The main agricultural area of the country is an extensive block of level land that lies between two mountain ranges, extending over the greater part of northern Manchuria, the whole of central Manchuria, and the basin of the Lio River. Actual farming is confined to an area estimated roughly at 120,000 square miles.

The soil of Manchuria is not of a uniform quality. In the south the best soils are formed by alluvial deposits, but periodic floods limit their usefulness to a certain extent. In general, however, this part of the Manchurian Plain is well suited for agriculture. Practically the entire available land of this section is cultivated; the density of population here is so great that numbers of landless farmers have been compelled to migrate to the central and northern sections of the country. The central part of the Manchurian Plain is the most fertile, and in recent years it has been settled rapidly. The most extensive area yet to be brought under cultivation is in the north, where the quality of the soil, though inferior to that of the central section, offers possibilities for agricultural expansion.

Manchuria has a temperate continental climate, characterized by long, cold winters, short, hot summers, and relatively little moisture. Rainfall averages about 20 inches annually, ranging from 26 inches in the south to 14 inches in the north. Yet from the point of view of Manchuria's chief staple crop, soybeans, the efficiency of the small volume of precipitation is relatively high because of its favorable distribution. Manchuria has never known a bad crop failure, for the unfailing summer rains insure a sufficient volume of moisture for late grains. Even if early crops, such as wheat, sometimes suffer when the rains are late, soybeans and kaoliang are sufficiently insured against serious droughts. It is true, nevertheless, that the existing climatic conditions impose limitations on the expansion of Manchurian agriculture northward or westward.

Land Utilization

The arable land of Manchuria is estimated at 102 million acres, or 31.5 percent of the total, while the area under cultivation amounts to 41 million acres, or 40 percent. The utilization of the land varies greatly from region to region. In South Manchuria from 65 to 95 percent of the arable land has already been put to use. In many districts, particularly those with good transportation facilities, all the arable land is cultivated. The future development of agriculture in this section will consist not so much in putting new land to use as in raising the productivity of the land already cultivated. The greater part of the uncultivated land lies in the northern, northwestern, and northeastern districts of Manchuria, where the proportion of arable land to total land available ranges from 5 to 52 percent. As might be expected, the land already under crops in these regions is superior insofar as climate and soil are concerned to the land yet untouched.

Farming in Manchuria is carried on in units varying greatly in size, ranging from small holdings of a few acres to estates of several hundred acres. These large holdings, however, are the exception; there are only a dozen estates of some 4,000 acres each and very few farms between 250 and 500 acres. Data concerning 700,000 farms in northern Manchuria show that farms between 18 and 54 acres in size constitute 45 percent of the total, while those from 2 to 18 acres each account for 36 percent.

In southern Manchuria, where the density of farm population is greatest, the average size of a farm is considerably smaller than in the north. An investigation of 11,000 farms in a typical agricultural section of southern Manchuria reveals that 62 percent have only 10 acres or less. It may be concluded that, generally speaking, large-scale farming is not practiced in Manchuria. On the other hand, when compared with the minute farmholdings of Japan and China or with native holdings of any of the southeastern Asiatic countries, Manchurian farm units appear large indeed.

TABLE 1.—*Distribution of crop acreage in Manchuria, 1938*[1]

CROP	AREA	PERCENTAGE OF TOTAL
	1,000 acres	*Percent*
Grains:		
Soybeans	9,560	25.6
Other beans	981	2.6
Kaoliang	7,966	21.3
Millet	7,252	19.4
Corn	3,790	10.2
Wheat	3,180[2]	8.5
Rice	887	2.4
Other grains	2,646	7.0
Other nontechnical crops	153	.4
Technical crops:		
Perilla	379	1.0
Cotton	248	.6
Hempseed	93	.3
Hemp	75	.2
Flax	69	.2
Tobacco	61	.2
Sesame	58	.1
Total	37,398	100.0

[1] Figures in this table apparently represent preliminary estimates; later figures for individual crops show wide variations from those given here.

[2] Estimate apparently for sown acreage, since later figures place wheat acreage at 2,681,000. *Japan Manchoukuo Year Book*, pp. 713-714, 1939.

Crops

The chief grains grown by Manchurian farmers are, in order of importance, soybeans, kaoliang, millet, corn, wheat, and rice; the principal technical crops are perilla, cotton, hemp, and tobacco. The latter group was responsible for only 2.6 percent of the 1938 crop area. Manchuria, therefore, is essentially a producer of grains. Approximately 26 percent of the entire cultivated acreage is devoted to soybeans; kaoliang (21 percent), millet (19), corn (10), and wheat (9 percent) are the other four important grain crops.

The two most important commercial crops in Manchuria are soybeans and wheat. In recent years soybeans have accounted for about 25 percent of the region's entire

grain output and represent approximately a third of the world soybean production. So predominant are soybeans, soybean cake, and soybean oil in the trade of Manchuria that they constitute 80 percent of the total value of all Manchurian agricultural exports and more than 50 percent of the total value of all Manchurian exports.

TABLE 2.—*Acreage, production, and yield of soybeans in Manchuria, 1924-1940*

YEAR	ACREAGE	PRODUCTION	YIELD PER ACRE
	1,000 acres	*1,000 bushels*	*Bushels*
1924	4,320	112,055	26.0
1925	6,619	126,092	19.0
1926	6,381	107,740	16.9
1927	8,752	163,319	18.7
1928	9,228	177,804	19.3
1929	9,493	178,389	18.8
1930	10,034	196,944	19.6
1931	10,380	192,057	18.5
1932	9,584	156,821	16.4
1933	9,886	169,056	17.1
1934	8,088	122,980	15.2
1935	8,334	141,793	17.0
1936	8,571	152,315	17.8
1937	9,012	159,907	17.7
1938	9,560	157,445	16.5
1939	10,287	144,952	14.1
1940	9,457	[1] 140,984	14.9

[1] Unofficial estimates place the crop at 118 million bushels.

Estimates of the South Manchurian Railway and Department of Industry of Manchoukuo Administration.

The crop is also of great importance to Japan, for soybeans are a staple food of the Japanese and a source of feed for their animals and of much-needed fertilizer. Japan's production of soybeans accounts for only 30 percent of the country's consumption. The shortage is made up largely of imports from Manchuria. Soybean imports form Japan's largest single item of foodstuff imports and the fifth largest item imported into Japan. From the Japanese point of view, the mitigating factor in these huge imports is that the main source of supply is Manchuria, a member of the yen bloc. Japan is therefore in a position to get the volume of soybeans needed without expenditure of foreign exchange.

Soybean production in Manchuria reached its peak in 1930, when it was estimated at 197 million bushels; in the early 1930's, however, it declined. Output reached a low of 123 million bushels in 1934, but has recovered since to 160 million bushels in 1937, or 19 percent less than in the peak year. Decreased yield per acre, smaller acreage brought about by the Japanese invasion, and subsequent "pacification" of Manchuria were the causes of the decline. The present war has placed a heavy burden on the soybean industry. During the decade prior to the outbreak of war, Europe took

about 60 percent of the exported volume. At present the market has virtually disappeared, and the effects on the economic welfare of Manchuria are adverse indeed.

Wheat, the second most important commercial crop of Manchuria, has not fared well. Between 1927 and 1931 wheat acreage increased, reaching a peak of nearly 4 million acres with an output of 58 million bushels. Since 1931 climatic as well as unsettled political conditions have brought about a reduction in acreage and production (table 3). With the decline in output and the increase in population, Manchuria lost its position as a surplus wheat producer and became a deficit region.

TABLE 3.—*Acreage, production, and yield per acre of wheat in Manchuria, 1924-1940*

YEAR	ACREAGE	PRODUCTION	YIELD PER ACRE
	1,000 acres	*1,000 bushels*	*Bushels*
1924	1,843	29,542	16.0
1925	2,174	35,303	16.2
1926	2,212	35,551	16.1
1927	2,812	53,085	18.9
1928	3,254	53,986	16.6
1929	3,175	47,831	15.1
1930	3,392	50,857	15.0
1931	3,919	58,066	14.8
1932	3,094	41,634	13.5
1933	3,395	31,726	9.3
1934	2,042	23,463	11.5
1935	2,667	37,312	14.0
1936	2,743	35,235	12.8
1937	3,005	41,373	13.8
1938	2,681	34,318	12.8
1939	3,188	34,753	10.9
1940	2,518	31,967	12.7

Estimates of the South Manchurian Railway and Department of Industry of Manchoukuo Administration.

The output of other grains has not increased from the low of 1934. During 1930-1933 production amounted to an annual average of 1,420 short tons, as compared with 1,186 during 1934-1937. The exceptions were corn and rice. In 1937 the production of these two crops was the highest on record. Considering Manchuria's agricultural output as a whole during 1931-1937, some recovery may be noted in the second half of the period, particularly in soybeans.

Thus a few years after the country became a Japanese colony Manchurian agriculture was not in a prosperous state, and certainly was not promising as a field for capital investments and favorable returns. Japan therefore concentrated largely on Manchurian industrialization, where the rewards seemed more certain and immediate. But perhaps more important than the question of returns was the fact that Manchurian industrialization was planned with the view of supplementing that of Japan proper. Yet even in the years immediately after the "incident" the possibility of exploiting

Manchurian agricultural resources did not escape the attention of the Japanese. The motivating force behind this attention will be found in the chronic crisis from which Japanese agriculture has been suffering.

THE CRISIS IN JAPAN'S AGRICULTURE

Agriculture is the backbone of the economic life of Japan. The unprecedented progress of Japanese industrialization in recent years has tended to obscure this fact. Actually, however, the importance of agriculture in modern Japan is still great. As one writer has said, "Japanese agriculture employs nearly half of our population, occupies a substantial part of the land area of the country, has invested in it nearly half of the nation's industrial capital, an amount more than half as much again as that invested in manufacturing industry and commerce together, is an important factor in foreign trade, and is an almost exclusive provider of the nation's staple food."[3]

If Japanese agriculture were as prosperous as it is vital to the nation, it would be a thriving industry. However, rural Japan cannot lay claim to either prosperity or to progress. Long before the industrial slump of the first half of the thirties, Japanese farmers found themselves in the throes of depression. In the early thirties, when Japan's industry and foreign trade achieved some of their most notable advances, the countryside presented a striking picture of impoverishment, distress, and social unrest.

This situation must be attributed to numerous burdens that Japanese farmers have to shoulder and that operate to their detriment even in normal times. Chief among these are inequitable land distribution, widespread tenancy, sharp price fluctuations, heavy taxes, indebtedness, and exorbitant interest rates. But underlying all these is the handicap of limited arable acreage in relation to the rapidly growing farm population.

Land utilization in Japan is highly developed, and "not only the hillsides, but in some places even the mountain summits,"[4] are made to yield crops. Approximately 15 million acres, or 16 percent of the total area, is under crops. Despite the efforts of the past 60 years, the area under cultivation has increased by only about 25 percent, whereas the population has practically doubled. The extension of cropland was achieved mainly during the first three decades of the present century. Since then the acreage of arable land has remained practically stationary, and however hard the farmers try they cannot appreciably increase the cultivated acreage.

Because of the unequal distribution of the 14,940,000 acres among Japan's 5,575,000 farm families, it has been estimated that 34 percent cultivate less than 1.2 acres per family, 34.2 percent from 1.2 to 2.4 acres, 21.5 percent from 2.4 to 4.9 acres, and only 10.3 percent more than 4.9 acres. But even if the land were evenly distributed, each family would cultivate only 2.7 acres, or 2.3 acres less than the estimated minimum required to enable a Japanese farm to carry on without incurring debt.[5] If the minimum were attained, the cultivated land of Japan would support only

[3] Mayeda, Shigeichi, "Our Stricken Agriculture," *Contemporary Japan*, p. 269, September 1932.

[4] Nasu, Shiroshi, "Population and Food Supply in Japan," *Problems of the Pacific*, p. 346. Proc. Sec. Conf. Institute of Pacific Relations, Honolulu, 1927.

[5] "Third Report on the Colonization of the Continent," *Tokyo Gazette*, p. 400, April 1941.

about 3 million farm families, and the remaining 2.5 million households would constitute a huge group of "surplus" farmers. The existing state of affairs shows how land-hungry the Japanese farmers are and why, normally, agriculture in Japan does not pay. The question raised by one of Japan's foremost agricultural economists as to "whether or not such high population-supporting power [of the land] is partly due to a sacrifice paid by the peasants in the form of a low standard of living,"[6] may be answered in the affirmative.

Against this background of "many men on little land" the agricultural possibilities of Manchuria began to assume great importance. One of the possibilities was the settlement in Manchuria of "surplus" Japanese farmers. According to the president of the Manchuria Colonization Company, such a policy "conforms to the spirit of racial harmony which forms one of the great principles laid down at the time of the foundation of Manchoukuo. As such it is the holy task of Japan and Manchoukuo to open up the country through immigration and promote fruitful racial concord in the new Empire."[7] In reality, of course, Japan's objectives were more concrete and undoubtedly more material. Thus, according to Japan's Secretary of Agriculture, "Japanese emigration to that vast land means, *inter alia*, ... a way out of the difficulties arising from the intensive system of cultivation in Japan Proper, ... and the exploitation of natural resources in that latter country."[8] In other words Manchuria was to become a safety valve, as it were, for relieving the pressure on land in Japan.

COLONIZATION OF MANCHURIA

The Chinese Phase

An ever-rising tide of Chinese immigrants was responsible for Manchuria's agricultural development during the relatively short period of the first three decades of the present century. Until late in the nineteenth century Chinese penetration was greatly restricted by Manchurian authorities. It took almost four centuries for Chinese immigrants to succeed in occupying a comparatively small area of land; namely, the southern section of the Manchurian Plain. In 1900 the central and northern sections of the Manchurian Plain, where a large part of the fertile land is concentrated, were still almost uninhabited.

With the removal of immigration restrictions, the building of the Chinese Eastern Railway, and the development of internal conditions in China that made it imperative for the Chinese to search for new land, immigration into Manchuria assumed a mass character. The peak was reached during 1927-1929, when more than a million Chinese entered Manchuria each year. Large numbers occupied land as fast as they could, and within the period 1919-1930 the acreage under crops in Manchuria doubled. The "incident" of 1931 put an end to the rapid Chinese colonization. Between 1931 and 1935 the net increase in immigrants dropped considerably, and in 1935 was only 24,000. In the same year the Manchurian Government instituted a number of restrictions on immigration from China; these were eased in 1937 as a result of the inauguration of

[6] Nasu, Shiroshi, "Land Utilization in Japan," p. 196, Tokyo, 1929.

[7] Tsubokami, Teiji, "Immigrants in Manchuria," *Manchuria*, p. 775, Dec. 1, 1938.

[8] Arima, Yoriyasu, "Japan's Agricultural Administration," *Contemporary Japan*, p. 181, Sept. 1937.

the five-year plan for the country's industrialization and the consequent demand for Chinese laborers. In 1939 Chinese immigration into Manchuria reached a net total of 595,000, the highest figure since 1927. But in contrast to the situation during the 1920's, the immigrants of 1939 were not permitted, let alone encouraged, to settle on land; they constituted the coolie labor employed in a variety of industries. The uncultivated land reserves were set aside for the Japanese, who were to continue the colonization of Manchuria so successfully carried on by the Chinese before 1931.

The Japanese Phase

The policy of settling Japanese farmers in Manchuria is not of recent origin, but is about 35 years old. This immigration may be divided into three stages: the first, lasting from 1905 to 1931; the second, the period of experimentation, from 1932 to 1936; and the third, the stage of large-scale Japanese immigration, from 1937 to the present.

The first stage

Prior to 1931 Japan made three unsuccessful attempts to set up agricultural colonies in Manchuria. Twenty-five years after Japan had secured a foothold in Manchuria there were only a few hundred farmers out of the total Japanese population of 240,000 in that country. These farmers had settled in the Kwantung Leased Territory and in the South Manchurian Railway zone. All those who had taken up land there had been subsidized by the Japanese Government, but even this measure of assistance was not sufficient to keep them there, for many of them had left the land. Of the 566 farm families brought over no more than 94 remained.[9] One of the causes underlying the failure of the attempt was the refusal of Chinese authorities to lease Manchurian land to the Japanese. Whether or not colonization would have been successful without this handicap is questionable; it was a failure in even the Kwantung Leased Territory, which was entirely under Japanese control.

Moreover, at least part of the difficulty rested with the settlers themselves, since "1. There were individuals in the group that dreamt of fabulous wealth, and cared little for farming. 2. Some leased their land to Chinese farmers and sought profits as landlords. 3. No systematized agriculture was practised. 4. Disregarding the conditions in Manchuria, the settlers sought luxuries in their economic life."[10] On the whole, the Japanese settlers were in no position to compete with the Chinese farmers and were not prepared for the rigorous life that accompanied pioneering in a country like Manchuria.

The second stage

The second stage of the settling of Japanese farmers began after 1931; that is, after Japan had succeeded in extending its political and economic influence throughout Manchuria. Having achieved that position, the undeveloped area of the country, estimated at 42 million acres, lay open to free Japanese immigration and farming.

[9] O'Neill-Lane, T., "Pioneering in Manchuria," *Contemporary Manchuria*, p. 4, January 1940.
[10] "Immigration of Japanese Farmers into Manchuria," *Contemporary Manchuria*, p.51, March 1938.

Japanese authorities were not slow to take advantage of the new situation. In 1932, before Manchuria was "pacified," the Department of Colonial Affairs at Tokyo drew up a ten-year plan for settling 100,000 Japanese farm families. The major premises upon which this program was built were as follows: "To make family the basic unit, due chiefly to the advisability of fostering settlements on a self-sufficient and economically independent basis, and to allot farm lands according to the needs and ability of each household; (2) to train prospective immigrants in Japan prior to their departure for Manchuria or to prepare them fully in Manchuria after migration prior to their final settlement; [and] (3) to render necessary financial assistance to the emigrating farmers."[11] Each immigrant was to receive a government subsidy of 1,060 yen ($271),[12] in addition to the benefit of facilities provided by the Government, such as hospitals, barracks, baths, wells, shops, schools, farm experts, and defense walls, all of which averaged 300 yen ($77) per household, or a total of 1,360 yen ($348).

The item relating to "defense walls" is of significance, for most of the settlers of this period were made up into battalions of colonial soldiers. They formed self-protected villages, which were essentially strategic military outposts in the struggle against the native rebels, commonly termed "bandits" by the Japanese. Each house had firearms and ammunition, and the villagers were trained almost like soldiers, so that should an attack occur they knew exactly what they had to do and how to do it.

Each settler was to receive from 37 to 61 acres of land, and for this purpose tracts of land totaling 2,450,000 acres were acquired in the Sankiang and Pickiang Provinces of eastern Manchuria. No sooner was the plan drawn up than it was decided to carry it out on a smaller scale. But even its downward revision, the extent of which was not revealed, evidently fell far short of realization, for during 1932-1936 only 2,785 Japanese farm families settled in Manchuria. These farmers migrated under the auspices of the Ministry of Overseas Affairs.

During approximately the same period another group, numbering 1,138 households, was settled on land owned by the South Manchuria Railway Company. The duty of the settlers, all ex-service men, was to protect the railway lines. In return each household received 7 acres of land, housing, agricultural implements, seed, and a cash subsistence allowance of 1,320 yen ($356) in the course of five years. Each settler became the owner of his farm after four years.

Altogether, therefore, the total number of Japanese settled on land in Manchuria was 3,923, a small number considering all the inducements offered them. Yet those responsible for the Japanese colonization in Manchuria were not daunted by failure or slow progress. An investigation of the economic status of a small group of one of the five settlements created during 1932-1936 convinced the Japanese that colonization in Manchuria was feasible. The net profit of 133 yen per household ($36) was considered very small when contrasted with the effort expended in the course of the year. Nevertheless, the conclusion was that in comparison with the conditions in Japan, where one had to work much harder and was unable to check growing indebtedness, the situation was not hopeless.

[11] *Sixth Report on Progress in Manchuria to 1939*, p. 116, Dairen, May, 1939.

[12] Conversions to United States currency made at annual average rates of exchange.

The third stage

New agencies and new plans, bigger if not better, were created in both Manchuria and Japan for the purpose of directing Japanese immigration into Manchuria. The Manchurian Colonial Development Company, with a capital of 15 million yen ($4,305,000), was set up in 1935 and enlarged in 1937 to 50 million yen ($14,350,000). The expansion was caused by the inauguration (in 1937) of the newest and most ambitious plan yet devised by Japan, that of settling a million Japanese farm families in Manchuria within twenty years. It was the business of the Company to direct the transplanting of nearly one-fifth of Japan's farm population in four five-year periods. The general nature of the plan is shown in the following tabulation:

Five-year period	*Number of families settled*
First	100,000
Second	200,000
Third	300,000
Fourth	400,000
Entire period	1,000,000

Vicinity and extent of settlements

Province	*Acres*
Farming immigrants:	
Chianusen	2,471,000
Hulin	2,471,000
Haolichen	2,471,000
Aigun	1,236,000
Menkiang	2,471,000
Lungchen	2,471,000
Wachang	741,000
Chico	124,000
Puhsi	2,471,000
Chinchow	1,236,000
Entire farming area	18,163,000
Livestock-farming immigrants:	
Salun	1,236,000
Kailu	1,236,000
Kulun	1,236,000
Linshi	1,236,000
Chalantun	1,236,000
Entire livestock area	6,180,000
Lumbering immigrants:	
Kirin	1,236,000
Total area of settlements	25,579,000

Types of settlements: With few exceptions the immigrants selected under the plan are from the most impoverished and most densely populated regions of Japan. They are to occupy the allotted land in groups, drawn from the same localities. This, with the collective facilities furnished by the Government, is to reproduce as far as possible the home character of the villages left behind in Japan. They are expected to create subsidized, free youth-volunteer, railway-protective, forestry, and tobacco settlements. But in general the plan divides all the immigrants into two groups: those subsidized by the Japanese Government and those receiving financial assistance from private sources or relying on their own resources. Subsidized immigrants receive from the Japanese Government 1,000 yen ($287) each, which need not be repaid; the

Manchuria Colonial Development Company advances an additional 1,900 yen ($545), minus the price of their land at cost, which must be repaid in installments.[13] But even the so-called free or independent settlers receive a Government subsidy of 300 yen ($86) to cover traveling expenses and for the acquisition of farm land.

Allotment of acreage: Every family receives a standard land area of 25 acres of arable land and 12 acres of forest and grazing land. This is considered a minimum requirement, a generous minimum when compared with the average holding of a Manchurian farmer of approximately 7 acres, or compared with the 2.5-acre average in Japan. Altogether, the plan calls for the utilization of 25 million acres of arable land, or almost twice that of Japan, in addition to 12 million acres of forest and grazing land. The Japanese evidently have little difficulty in acquiring the land, and at little cost, for most of the land consists of imperial estates of the Ching Dynasty, other public-domain lands, and "sequestrated ranches and farms of feudal landowners who had rebelled against the Manchoukuo Government. Other lands were bought at fair prices from numerous native owners."[14] The last category of land constitutes 10 percent or less of the total area to be utilized; it may be assumed, therefore, that 90 percent of the land comes from sources that call for hardly any payment.

Encroachment on native farm land: The difficulty of settling Japanese immigrants on undeveloped land led to the policy of establishing communities on partly developed land, at the border between inhabited and uninhabited areas, and gradually pushing the settlements farther into the uninhabited regions. This calls for "adjustments" on the part of some of the native farmers, amounting to forced selling of the land to the Manchuria Colonial Development Company. The Company in turn transfers the land to the Japanese settlers. Thus, "if an adjustment of developed land is found inevitable the original settlers are allowed to continue cultivating their lands till the arrival of the Japanese immigrant, or in case it is necessary for the earlier settlers to move out to another locality with incoming of the Japanese, the former are first designated new areas to move into, and supplied with funds for removal expenses so that they will encounter no difficulty in going to their new lands."[15]

There are provisions that the land of the original settlers must be acquired at fair prices, but it is not clear that this practice has actually been followed. When the withdrawal of the natives from the land is absolutely required, their bargaining power in the face of concentrated Japanese effort to get the land is not strong enough to insure full compensation for the loss of an already settled homestead. That natives must give way to Japanese settlers and that it has become a common occurrence is illustrated by the fact that 13,000 families were transferred in 1939 and that 21,000 families were to be moved in 1940.[16]

The title of ownership to the land of the Japanese settlers is vested in the State; they receive instead permanent tenancy as a guaranty against dispossession. Since the aim is to build an economically strong middle class of farmers, it is

[13] Tsubokami, Teiji, "Immigrants in Manchuria," *Manchuria*, p. 956, Feb. 1, 1939.

[14] Inouyi, Sonoshin, "Japanese Immigration to Manchoukuo," *Manchuria*, p. 15, Feb. 1, 1940.

[15] Tsubokami, Teiji, *op. cit.*, p. 955.

[16] Stewart, John R., "Chinese Migration to Manchuria Setting New Records," *Far Eastern Survey*, p. 215, Aug. 28, 1940.

proposed to keep the farmholding from excessive subdivision through a system of entailed hereditary tenure. In addition, absentee ownership with the attendant system of temporary tenancy and payments of exorbitant rentals, as well as accumulation of large holdings in single hands, is prohibited.

Once settled on the land, the Japanese are to perform many functions - not all agricultural. "They will serve," one writer noted, "as a stabilizing social factor, a dependable bulwark against internal revolt or alien aggression. They will function as the core, around which to build up the expanding economy and administration of the new Empire."[17] All this, which may or may not be achieved, lies in the future. Meanwhile, it is important to note some of the results of the third stage of the settlement of Japanese farmers in Manchuria and to point out some of the difficulties with which this movement is beset.

Results: Partly as a result of the China "incident" in 1937 and partly because of the unwillingness of the Japanese to migrate to Manchuria, the number of immigrants has been below the expected figure. During the first two years only the first year's plan was carried out, but the number of immigrants increased more rapidly in subsequent years. The influx was swelled by the Youth Volunteer Corps, organized in 1938. The Corps is made up of young men between the ages of 16 and 19, who are trained in farming and later settled on land in Manchuria. About 30,000 of them were selected as immigrants in 1938. Altogether, "In the past 9 years the number of Japanese settlers colonized in Manchoukuo has reached 50,000 in 25,000 families while the youth volunteers have totaled 40,000."[18] The total was below that of the plan; but in comparison with the results of Japanese colonization prior to 1937 the progress, from Japan's point of view, was considered sufficient to justify continued attempts. Whether these attempts will succeed in carrying out the plan of settling a million Japanese farm families depends on a number of factors over which the Japanese Government has little or no control.

Difficulties of colonization: The country's agricultural possibilities are considerably greater than those of any region of southeastern Asia. But it may be recalled at this point that although the unoccupied land reserves are large and fit for cultivation, the best land is already in the hands of natives. The land earmarked for Japanese settlers is in the remote, frontier regions of northern and northeastern Manchuria, made accessible by the new railways. But that in itself is not sufficient. It has been justly pointed out that, "To say nothing of reclaiming the alkaline soils of North Manchuria, if the new lands are to be developed, a huge amount of capital as well as a superior technique will be needed."[19] But as against these requirements, it must be pointed out that Japan has no capital to spare, while a new technique is yet to be developed.

The regions of settlement, more than any other section of Manchuria, are dry and hot in the summer and bitterly cold in the long winters. It may be noted in this connection that the Japanese have always been reluctant to migrate to the undeveloped island of Hokkaido (the northernmost part of Japan proper), largely because

[17] Inouyi, Sonoshin, *op. cit.*, p. 15.

[18] "Third Report on the Colonization of the Continent," *Tokyo Gazette*, p. 398, April 1941. Most of these families and individuals migrated during 1937-1940.

[19] Ishibashi, Tanzan, "Tapping Manchoukuo's Resources," *Oriental Economist*, p. 298, June 1941.

of the severe climate. In the past, Japanese settlements outside of Japan have been established southward rather than northward. Their colonies in the Philippines, California, and Brazil illustrate this fact. These colonies also developed under conditions of free enterprise, whereas in Manchuria the existing pattern is one of complete governmental monopoly of all agricultural matters. It remains to be seen whether the effect on Manchuria, where agricultural expansion calls for pioneering effort, will be beneficial.

In fostering the colonization of Manchuria the Japanese Government is attempting to override the cardinal principle of any migration movement; namely, that immigrants move only from a country with a lower standard of living to that with a higher. It is possible that the Japanese settlers may raise their standard of living above that of the natives if (1) they make the fullest use of their large allotments, which are more than three times the size of the average holding of a Manchurian farmer; and if (2) they diversify their farming to a greater degree than is now practiced by the natives. To achieve the first they must employ modern farm machinery instead of the traditional intensive Japanese methods and extensive Manchurian methods of cultivation. It calls also for a huge capital investment. For, "If nothing but the old traditional Manchurian methods should continue to be used," a leading Japanese economist wrote, "the agriculture of Manchuria would have no alternative but to go to the wall. In that case, it would also be impossible to settle Japanese farmers there."[20]

But even if modern agricultural equipment could be acquired and its utilization mastered, there still remains the problem of cultivating a variety of crops much different from those already grown by the natives. Two very important crops, cotton and wool, both of which could find a ready market in Manchuria and Japan, cannot be raised with any degree of success. The difficulty with respect to cotton may be summed up in the following words: "Even the best cotton growing areas in Manchoukuo are not favorably located; they are among the northernmost raw cotton zones of the world. They suffer the further disadvantage of experiencing the first frost of the year very early, with the result that the period during which the cotton plants can grow is relatively short."[21] As for sheep raising, there is room for expansion and improvement. Manchuria has only 2 million sheep, yielding per head 2.2 pounds of wool, most of which is of such poor quality that it can be used only in the manufacture of carpets or similar goods. Furthermore, sheep raising is carried on only in the Mongol grasslands in the western section of Manchuria, or largely outside the sphere of Japanese colonization. On the other hand, tobacco, sugar beets, hemp, and flax can be grown, and a livestock industry developed. Such special crops would have to be introduced and yields raised by improved methods of cultivation, because normally a Japanese settler could not compete with a Manchurian farmer, whose standard of living is exceedingly low.

That the Japanese farmers realize the difficulties confronting them is proved by their extreme reluctance to move to Manchuria. Land-hungry as they are, the mere offer of generous allotments is no inducement to them: they must be heavily subsidized and appealed to on the patriotic ground of their duty in building a new empire, and generally handled with as much care as one would employ in transplanting a tropical

[20] *Ibid.*

[21] Yagi, Y., "The Agricultural Interrelation of Japan, Manchoukuo and China," *Kyoto University Economic Review*, p. 37, July 1939.

plant. Yet no such baits were offered the Chinese immigrants. The land was there to clear and cultivate, and when permission to do that was granted they came in by the millions.

Effect on native farmers: Assuming that Japan does succeed in carrying out the twenty-year plan, the question arises as to the effect this success will have on the fortunes of Manchurian farmers. It is likely that they would benefit by learning better methods of cultivation from the Japanese farmers and by the introduction of new crops. But whether or not such gains would compensate for the huge reserves of land lost is questionable.

Japanese writers on the subject maintain that there is sufficient land to satisfy the needs of the newcomers as well as those of the natives. The point is made that even if the Japanese settlers should occupy an area of some 25 million acres of arable land, there would still remain a reserve of about 17 million acres. Actually, the total reserve of an estimated 42 million acres must be reduced by at least 25 percent - representing the 10 million acres that are hardly fit for cultivation. The arable land reserve of Manchuria would then dwindle to only 7 million acres.

Another aspect of this problem is worth noting. Manchurian land reserves are by no means indicative of land sufficiency on the part of the natives; the very opposite is true. The average size of a farm in Manchuria would be about 7 acres if the total cultivated land were more or less evenly distributed. In reality, however, great numbers of Manchurian farmers own less than 7 acres, while a considerable group owns no land at all and is compelled to farm on rented land; hence the development of the widespread tenant farming that plays an important role in Manchuria's rural economy. Data are not available relative to the acreage cultivated by tenants, but it was estimated that in this comparatively young pioneering agricultural country 30 percent of the entire farm population consist of tenant farmers with no land of their own. It may be concluded, therefore, that Japan's plan to settle a million "surplus" farm families in Manchuria, if successful, would partly solve a pressing rural problem in Japan proper; it would not, however, in any way alleviate the lot of the native Manchurian tenant, nor would it provide land for the coming generations of Manchurian farmers.

FIVE-YEAR PLAN FOR AGRICULTURE

Neglect by Japan

Until late in 1937 Japanese agricultural activities in Manchuria were limited to the settlement of Japanese farmers. The state of the country's agricultural economy was of little concern to the Japanese; the native farmers were left to themselves to carry on their agricultural activities as best they could. The Manchurian authorities, on the other hand, professed considerable interest in the fortunes of the farmers. In fact, early in 1936 they drew up a program to strengthen the country's agriculture, but lacking the support of the Japanese, they did little to implement the plan.

The nature of the program is of interest. Its principal feature was greater diversification. It provided that "growing of soybeans shall be properly controlled according to their actual demand both at home and abroad. For the time being, efforts

should be directed toward the improvements of the methods for soya-bean cultivation and quality of the crop. . ."[22] The policy with respect to all other products - wheat, cotton, tobacco, sugar beets, wool, and various oilseeds - was that of increasing output and improving quality as rapidly as possible. The program also aimed to improve farm methods in general through education by increasing the number of model farms and agricultural experiment and meteorological stations. Another objective was to improve marketing and credit facilities. The Manchurian Agricultural Products Institute, a semiofficial institution, was set up in 1935 to study foreign markets and competitive products as well as to encourage wider utilization of domestic products.

All this was a program on paper, never really translated into action. There was not even an agency to take care of the program, which if carried out would have resulted in basic changes. Even though a thoroughly agricultural country, Manchuria had no Department of Agriculture until June 1, 1940. One of the five bureaus of the Department of Industry administered agricultural affairs. In 1937 Manchuria adopted a five-year plan for agricultural development as a part of a five-year industrial plan. The essential point of the agricultural phase was self-sufficiency in deficit crops (wheat, rice, cotton) and increased output of soybeans, kaoliang, and corn. The total cost of the plan was estimated at 1,500 million yen ($430,000,000), and of this sum 220 million yen ($63,000,000) was to be devoted to agriculture. The plan was revised shortly after Japan began to wage war on China; the cost of its execution was set down at 4,800 million yen ($1,378,000,000), but expenditures for agriculture were reduced to 140 million ($40,000,000).

The reason for the unimportant place of agriculture is well summed up in the following words of a prominent Japanese official in Manchuria: "The 5-year plan. . . is designed to produce goods which will be of vital need in case of war. It is the duty of the Manchoukuo nation as a whole to exert even greater effort than hitherto to expand production of such goods so that Japan will not suffer from a shortage of war supplies."[23] The emphasis here was on industrial rather than on agricultural output.

Revival of Japan's Interest

The neglect of Manchurian native agriculture by the Japanese came to an end in 1938. Since then interest in agriculture has become so great that not a single phase has escaped the closest scrutiny. Within less than two years not only the output of Manchurian agriculture but the distribution, price, and consumption of agricultural products have become subject to the strictest, most minute control and regimentation.

The causes underlying this about-face in Japan's attitude are manifold, but it is important to note that in the main they were not Manchurian in origin. The outbreak of the European war placed Manchuria's soybean crop in a most difficult situation, and measures of protection or adjustment would have been taken even if the Manchurians had been masters of their own country. The fact remains, however, that the credit for transformation of a free agricultural economy into one in which the farmer has lost all freedom of action must be placed at the door of the Japanese.

[22] *Japan-Manchoukuo Year Book*, p. 855, 1937.

[23] Hoshino, Naoki, "Thoughts on Current Situation," *Manchuria*, p. 615, Sept. 15, 1938.

Japan's war against China was the immediate cause for the increased attention given Manchurian agriculture. The semiwartime economic structure existing in Japan even before the "incident" had to be tightened after the outbreak, and Manchuria had to follow suit. The war called for huge expenditures, and the financing of Manchuria's five-year plan became difficult, if not impossible. With loans abroad impossible to obtain, the problem of foreign exchange became acute. Hence exportation of agricultural products, especially soybeans, was emphasized as a means of securing exchange. During the past two years Japan has been experiencing food difficulties due to crop failures in Japan proper and in Chosen, and has therefore turned to Manchuria for help to overcome the shortage. The problem of Japan's planned "new order" in eastern Asia is also important, for Manchuria is looked upon as the future leading granary for the bloc of countries which Japan expects to dominate. Having determined the role of Manchurian agriculture in Japan's program, the next problem was that of a method of making it yield the expected returns. The answer, as already indicated, lies in a vast system of controls and regulations, and in an increase in output through the application of a new ten-year agricultural plan.

TEN-YEAR PLAN FOR AGRICULTURE

In the fall of 1939 the food situation in Japan became serious. Chiefly for this reason a Japan-Manchuria-China agricultural conference was held in Tokyo in October 1939, the outcome of which was a new ten-year plan, inaugurated in January 1941, to raise Manchuria's annual agricultural output to 55 million short tons.[24] This is an ambitious plan indeed, considering the fact that Manchurian agricultural output in recent years or even immediately preceding the "incident" of 1931 did not exceed 22 or 23 million tons.

No detailed figures are available concerning the yearly plans, but it is indicated that during the first five years special attention will be paid to increasing the output of rice, soybeans, and wheat. Rice production is to be raised with a view to supplying not only domestic needs but also the growing demand for this staple foodstuff in Japan. The area under rice is to be increased from 1,048,000 acres to 3,459,000 acres, yielding an output of 10 million koku (1.5 million short tons), most of which is intended for export to Japan. The present system of granting permits for the cultivation of rice fields will be reexamined in the light of the new plan, and better seed and more fertilizer supplied to farmers in order to raise yields. To encourage rice production a subsidy of 30 percent of the total cost will be given to those farmers who cultivate a tract of 50 acres or more. The output of soybeans, the principal export item, is to be increased by about 20 percent. Here, too, the use of improved seed and methods of cultivation will be encouraged.

In recent years Manchuria has been a wheat importer. To achieve self-sufficiency the plan calls for raising the present output of approximately 770,000 short tons to 1,200,000 in the course of five years. By way of stimulating the farmers to greater efforts, the Government intends to establish a system of paying indemnities to wheat-raising districts affected by early frost or drought so as to minimize the losses incurred by producers. Besides rice, soybeans, and wheat, the plan covers practically all phases of the agricultural economy of Manchuria.

[24] *Manchuria*, p. 472, Oct. 1, 1940.

CONTROL OF AGRICULTURE

The possibility of increasing agricultural output, particularly when so remote a figure as 55 million tons is the objective, lies in the distant future. But the control over Manchuria's existing output in accordance with Japanese needs was a matter that could not be postponed and had to be instituted immediately.

Control of Manchuria's agricultural economy was preceded by state regulation of industry, which began in May 1937 with the Act for the Control of Important Industries. The protracted Sino-Japanese war necessitated more stringent regulation of Japan's economy, which was followed immediately by somewhat similar measures in Manchuria. Thus, Manchuria adopted a number of emergency measures, such as the revision of the Act for the Control of Foreign Trade, the enactment of the Ordinance for the Control of Profiteering, and finally the promulgation of the National General Mobilization Act, in February 1939, which placed a controlled Manchurian industrial economy at the disposal of Japan.

All this presupposed the control of prices as well as of the supply and demand of commodities. Since Manchuria is essentially agricultural, specific measures had to be taken in order to put individual commodities or groups of commodities under state control. This action began in September 1938, with the establishment of control over the prices and distribution of wheat and flour. Other principal products, and even products of secondary importance, were subjected to the same treatment through the establishment of one state monopoly after another. The prices of such mainstays of Japanese agriculture as soybeans, wheat, kaoliang, millet, corn, and lately rice were fixed by special governmental or semigovernmental companies; these companies or their agents also became the sole buyers of the crops. Less important products were controlled by means of associations composed of those engaged in the trade. They too, however, were subject to strict governmental control, and were, in effect, buying agents for the Government. The extent of the control is indicated by the following more important Government companies:[25]

Name	*Control*
Manchuria Cereals Company, established December 1938, capitalized at 30 million yen ($8,520,000)	Controls marketing, distribution, and exports of pure, adulterated, or processed rice, kaoliang, millet, and corn. The company also acts as a government agent for purchasing other miscellaneous cereals.
Manchuria Cereal Flour Company, established December 1939, capitalized at 10 million yen ($2,590,000)	Controls marketing of wheat, distribution of wheat for manufacture, redistribution, and imports of wheat flour, kaoliang, and corn flour to be used as a wheat-flour substitute.
Manchuria Staple Produce Company, established December 1939, capitalized at 30 million yen ($7,770,000)	Controls marketing, distribution, manufacture, and exports of soybeans, bean cakes, bean oil, and other oil-bearing seeds such as perilla seed, sesame seed, hemp seed, and linseed. The company was also designated as distributor and exporter of peanuts on behalf of the Kwantung Government.

[25] Dawson, Owen L., American Agricultural Attaché, Shanghai, in a report entitled "Developments in Agricultural Policy and Programs for the Japanese Empire Occupied Areas in China and 'Manchoukuo' During the year 1940," p. 56, April 3, 1941.

Manchuria Leaf Tobacco Company, established December 1938, capitalized at 10 million yen ($2,840,000).	Controls planting, marketing, distribution, and importation of leaf tobacco (principally flue-cured tobacco).
Manchuria Forestry Company	Controls forestry and distribution of timber and lumber.
Manchuria Livestock Company	Controls livestock products; lately has also been appointed as purchasing agent for hides and leather.
Manchuria Cotton Company, established April 1934, capitalized at 10 million yen ($2,970,000)	Controls marketing of raw cotton.

In addition may be cited the Manchuria Bureau for Collecting Castor Beans and Castor Oil (December 1937); Manchuria Cotton Seeds Exporters' Association (November 1938); Manchuria Hemp Traders' Association (September 1938); and the Manchuria Perilla Association.

The chief features of the numerous monopolies are identical; it is sufficient, therefore, to describe and analyze only the controls over some crops and the agencies created to administer them.

Law for the Control of Important Grains

This law was enacted on November 2, 1939, in order to "smooth supply and distribution of important cereals and the correct price thereof" (Art. 1). To carry out this objective the law provides that free buying and selling of kaoliang, corn, and millet is forbidden; the right is reserved for the Government to designate the persons or organization which may engage in such trade (Art. 3). It follows, then, that no one but authorized operators may export grains, and only upon obtaining permission from the Ministers of Industry and Finance (Art. 4). Only designated operators may ship grains by rail or water (Art. 5), while the proper authority is given the right to stop such shipments if it is deemed necessary (Art. 6), or to stop speculative buying and force the sale at fixed prices of speculatively held grains (Art. 8). In addition to the prohibition of free domestic or foreign trade in grains, the other important features of the law are the price-fixing provisions. Wholesale and retail prices are fixed by the Government (Arts. 9 and 10). The Government also has the right to investigate any or all phases connected with the buying or selling of grains by designated operators (Arts. 13 and 14). The violation of any of these provisions carries a penalty which may be as high as a five-year prison sentence or a 5,000-yen ($1,295) fine.

Under the authority of the new law the Manchuria Cereals Company was designated as the grain operator; and in effect, the law requires that all grains be sold to the Company, which in turn is to export and resell them to wholesalers at official prices (Art. 7). This requirement, of course, was not intended as an aim in itself; the main purpose was to prevent a rise in foodstuff prices. The consumers of Japan would benefit thereby, and so would the Japanese entrepreneurs engaged in the industrialization of Manchuria, for low food prices for the urban population means low wages. The interests of the farmers, as revealed by either the text or the intent of the law, are not given consideration; in fact, they are not mentioned at all. Their business

is to raise crops and turn over to the monopoly all that they cannot consume. The prices they receive are arbitrary prices, fixed by the Government, that bear no relation to the mounting prices of goods the farmers must purchase.

Control of rice

Rice may serve as an example of control applied to individual crops. The growing of this grain in Manchuria is of relatively recent origin; but because of the importance attached to the grain by Japan, it did not escape the control system. According to the Rice Control Act, effective November 2, 1938, official permits are required for developing paddy fields; rice cannot be grown in districts other than those officially approved. The guiding principle in granting permits is "self-sufficiency of supply in time of peace and satisfaction of military needs in time of war ..."[26] As for all other Manchurian agricultural products, the control system aims to secure the crop from the farmers at an "equitable" price established by the Government. The matter of price is all-important, for in the opinion of the Japanese rice prices in Manchuria have often risen to unreasonable heights.

The Manchurian Rice Corporation, organized in December 1938 with a capital of 10 million yen ($2,840,000), is the agency through which the control is carried out. Only the Corporation has a right to buy the crop from the producers, who must sell all but the volume required for their own consumption. The actual purchasing is done through former dealers, now accredited agents of the Corporation or the Monopoly. To insure rigid control, the Monopoly also has the exclusive right of importing and exporting rice. The establishment of rice-cleaning mills and the extension or remodeling of existing mills are also under its control.

In this manner a comprehensive system of control over rice production and distribution has been set up - ostensibly in the interests of farmers and consumers. It is clear, however, that the Monopoly reduces the farmers to mere farm hands, as it were, with no right to dispose of their crops as they see fit. Consumers - in this case principally the Japanese - are the sole beneficiaries, as shown in the following statement: "Through the establishment of the Manchuria Rice Corporation, supply for the defense forces [Japanese] is guaranteed, while the export of the cereal to Japan is regulated so as to insure the coordinated execution of the rice policy of Japan and Manchoukuo."[27]

Control of soybeans

Agricultural control in Manchuria did not come into its own until the Government monopolized the soybean trade, both domestic and foreign, in the fall of 1939. A limited degree of control of the exports of soybeans, bean cake, and bean oil, accounting for about half of Manchuria's total exports, has been applied since the spring of 1939. The purpose was to restrict the rising exports to the yen-currency areas in order that larger quantities might be sent to other countries. As a matter of fact, however, since Japan is the largest yen-currency importer of soybeans and bean products, the export restriction was one in name only. On the other hand, the second part

[26] "Rice Control in Manchoukuo," *Manchuria*, p. 1238, June 15, 1939.
[27] *Ibid.*

of the objective was serious enough, because exports to foreign-exchange countries were declining, partly as a result of the rise in commodity prices, including the price of soybeans, in yen-currency areas. All this found its expression in the following official statement of August 30, 1939: "Notwithstanding the efforts of the Government, the quotations of soya beans have been so erratic [high] as to impede exportation, militating against agricultural economy and hampering the progress of the Government programmes. Hence the Government has felt the urgent necessity of taking further steps for the improvement of soya bean economy."[28]

In order to raise exports to non-yen countries, therefore, the reduction of Manchurian prices of soybeans and bean products became a necessity. To be sure, with the outbreak of the war those exports that were to provide foreign exchange or equipment dwindled sharply; but there was still Japan eager to get the products at low prices. Accordingly Manchuria instituted a comprehensive system of control over its most important industry by enacting on October 17, 1939, the Law for Control of Staple Produce.

This law aims to control and regulate the price and distribution of staple products (soybeans,[29] seeds, bean cake, and bean oil), and to expand production and exports, as well as to develop industries using such produce as raw material (Art. 1). These aims are to be realized, first, by providing that no person can transport such products by rail or store them in the warehouses of the South Manchuria Railway Company without first securing Government permission (Art. 3); second, staple produce now in railway mixed-storage warehouses must be sold immediately to the Manchuria Staple Produce Company (Art. 4); third, and very important, the proper authorities may order the sale to the Manchuria Staple Products Company of produce belonging to persons who wish to ship it by rail or any other means. In other words, free traffic in beans, cakes, and oil had to come to an end (Art. 5). Fourth, the purchase price is determined by the minister concerned (Art. 7); fifth, sales made by the Manchuria Staple Produce Company must conform to the distribution policy of the Government (Art. 6); finally, in order to enforce the provisions of the law, the ministers concerned may order the exporters, processors, or distributors of staple produce to present reports concerning their business, or may send their officials "to the business offices, warehouses, and other places belonging to or occupied by the above mentioned persons, to examine safes, books, papers and other things or to interrogate the persons concerned" (Art. 9).

The Manchuria Staple Products Company was created by a special act of October 17, 1939, to carry out these provisions. More specifically, the company engages in purchasing and selling staple products at officially fixed prices; in investing in industries processing staple produce; in research to improve the quality of staple products; in developing new markets; and, at the request of the Government, in any other business concerned with the control of the staple-produce industry. The actual exporting is done through the unions or federations of exporters.

The company is capitalized at 30 million yen ($7,770,000), paid in full by the Government. The Government reserves the right to transfer or offer for public

[28] "Control of Agricultural Produce in Manchoukuo," *Manchuria*, p. 1527, Dec. 1, 1939.

[29] At first the law applied only to yellow beans, but a revision introduced on Feb. 10, 1940, extended control to all beans, bean cakes, and bean oil. Later control was extended to other oil-producing crops, including peanuts, perilla, sesame, hemp and sunflowers, and their products.

subscription, if necessary, shares to the amount of half the capital. The dividend rate is fixed and its full payment guaranteed by the Government. The officers of the company are appointed by the Government, and practically all of them are Japanese.

The two acts just described, the subsequent amendments, and the new restrictive legislation promulgated in 1940 transformed the country's leading industry into a state monopoly. As such it marks the end of an old and the beginning of a new epoch in Manchuria's economic history. The farmers must now sell their chief cash crop to the monopoly at officially fixed prices; the monopoly in turn sells to the exporters in accordance with its own regulations. The farmers would stand to benefit, especially since the majority of the commission men are eliminated, provided they received a reasonable price for their crops. But, as already mentioned, the policy of the monopoly has been one of keeping prices down. It must be stressed that the main reason for the establishment of the monopoly was to supply Japanese farmers and consumers with beans and bean products at the lowest possible price and to get possession of the remainder of the crop for the purpose of securing the much-needed foreign exchange. Since this is the motive for the establishment of the monopoly, official claims that state control of the soybean industry is "leading to the improvement in the economic life of the people"[30] cannot be taken seriously.

Besides the Japanese beneficiaries mentioned, the exporters' association also stands to gain. As most members of the association and the monopoly are Japanese, it may be assumed that the monopoly is not only not injuring the interests of Japanese business, particularly big business, but like all other Manchurian industrial monopolies is a profitable combination of Japanese capital and Japanese-inspired economic policies working harmoniously for Japanese capital and the Japanese State.

Inadequacy of control

By the end of 1939 the system of agricultural controls had become elaborate, covering all the principal products. Yet despite the airtight monopolies and the alleged record purchases by these monopolies, it was apparent that the system was not achieving the desired results. It was noted that "In the light of the practical operation of the control machinery, it was the produce gathering system that had left something to be desired; consequently, it may be said that the improvements introduced centred round this essential point."[31]

The "improvements" referred to include the organization of new agencies as well as the replacement or revision of the Rice Control Act, Wheat and Flour Control Act, the Staple Produce Act, and the Principal Cereals Act by new enactments, price revision, and payment of bonuses for timely delivery of produce. On the whole, however, these organizations constituted merely another attempt to plug every imaginable leak in the control system. Although new enactments deal with a variety of agricultural products, they have but one purpose: to deliver into the hands of the state monopolies the entire crop of every agricultural product entering commerce. They also have two common features: the first compels the producer to sell only to, and the consumer to buy only from, the monopoly; the second provides a set of penalties for any infringement of the provisions.

[30] "Manchuria Staple Products Company," *Manchuria*, p. 1426, Sept. 15, 1939.

[31] "Agricultural Control", *Manchuria*, p. 511, Nov. 1, 1940.

Cooperatives

The first step in tightening the control over agricultural output in Manchuria was the enactment of the Law of Agricultural Promotion Cooperative Societies in March 1940. This system was put into effect a month later, when the existing rural loan cooperatives and financing societies were dissolved and their assets and liabilities were taken over by the new cooperatives.

According to Article 10 of the cooperative law "The purpose of the cooperatives shall be to improve and promote agriculture by joint effort of members and to further the prosperity of the latter." This was to be achieved (Art. 17) through lending money, retaining any surplus in the form of savings, selling the crop, collective buying of farm necessities, and common use of warehousing facilities. Ostensibly, then, the cooperatives of Manchuria are to engage in the kind of business in which cooperatives in free countries engage. However, a closer examination of the constitution of these newly set up organizations reveals that they little resemble those of the free countries; that they were created not with an eye to the welfare of the farmers, but for the sole purpose of bringing them under direct governmental control so that the State might acquire their produce with less difficulty, at prices set by the Government.

Membership in a cooperative is limited to independent farmers, or landlords. Although the law does not say that all independent farmers must join the cooperative of their district, the pressure from government-controlled farm groups and the difficulty of and extreme conditions for withdrawal from membership make it clear that the law anticipates admission and permanent membership of every farmer.

The cooperatives are organized on the basis of local administrative divisions. The local associations are organized into provincial federations, which in turn make up the Central Union of Cooperatives. The membership does not elect the officers; the chairman, directors, and auditors are appointed by the Government, and are expected to perform their duties "in obedience to righteousness and morality." Local officials act as advisers to the cooperatives, but they, too, are appointed by the Government. In addition, each cooperative has an advisory council composed of members' representatives, to be convened at least once a year to lay before the president the wishes of the members and to discuss general but unimportant matters referred to them by him (Art. 46). No provision is made elsewhere in the law for other participation in cooperative affairs by the farmers. Although the members of the cooperatives are native farmers, all the heads of the Provincial cooperative federations and practically all the heads of local cooperatives are Japanese.

The program of work and the budget are discussed by the council, but it has no power to act upon its own recommendations without first securing the approval of the Government. Dissolution of a cooperative is not within the province of its membership; only the Government has the right to dissolve it altogether or transfer it to another cooperative. Nor can a cooperative alter the rules or make changes desired by the membership without the approval of the Government.

That the Manchurian agricultural cooperatives have little in common with similar institutions in free countries becomes even clearer upon examination of their finances. The Central Union of Cooperatives carries on business on a national scale, not with funds contributed by the membership but by a 30-million yen ($7,020,000) fund

furnished by the Government. The members are not permitted to buy shares, which is the normal basis of capital formation in cooperatives the world over. Thus Article 14 provides that "members of cooperatives shall not make investments," and "shall not have an interest in the property of the cooperatives." What are the farmers to do with their "savings" or reserves accumulated in the cooperatives? One-fifth must be put in a reserve fund controlled, of course, by the Government. Furthermore, at the end of each fiscal year the entire reserve fund must be put aside and may not be disposed of without permission of the competent minister (Art. 52). These two funds are turned over to the Central Union of Cooperatives, which may use them as deposits in the Central Bank of Manchou, from which the Government obtains its current cash, or may purchase Government bonds. The conclusion is warranted that the farmers' "savings" are playing a considerable role in national finance.

The description of the principal features of the cooperatives shows that they were not set up to serve the needs of the farmers, who have no hand in their establishment or management. The cooperatives are, above everything else, an important part of the control scheme to acquire the entire commercial crop of Manchuria at a Government price in order to sell it at a minimum price to Japan and at a maximum somewhere else. It is of significance to note that the Law of Agricultural Promotion Cooperative Societies was enacted after the farmers had failed to respond to the state agricultural monopolies established in 1938 and 1939. It was the business of the cooperatives to induce the farmers to sell the crop of 1940 without recourse to more extreme measures than the punishments provided in the laws. "Farmers will be forced," one person familiar with the problem noted, "by circumstances and by police and Concordia Society agents to join the cooperatives and deliver their harvests to them, and will have no alternative but to accept the price the Government pays them."

There is an even worse aspect to the cooperative-farmer relations: not only is the farmer getting what he considers a low price for his output, but he is not even sure of the proceeds to which he is entitled. The fact that he can neither make investments nor have a financial interest in a cooperative and the use made of farmers' reserves in the cooperatives suggest that the management will have much to do with the ways the farmers dispose of their income. "Actually, according to preliminary reports, the farmers will get no money at all but credit slips to use in the cooperative retail stores. As the matter stands at present, the farmer has nothing to protect him from virtual slavery but the mercy and good sense of his Japanese masters."

Produce Exchange Markets

Closely related to the cooperatives are the produce exchange markets, which came into existence just as the 1940 crops were about to be harvested.[32] These markets and native grain shops organized into associations (under the Rules for Liangchan Associations) form the newest agricultural marketing organization of Manchuria.

Produce Exchange Law

Under the provisions of the Produce Exchange Law it is obligatory for administrative areas to establish official markets in the operation of which the cooperatives

[32] Law of Agricultural Produce Exchange Markets, effective September 1, 1940.

take an active part. Manchuria's commercial crops may be bought and sold at these markets only, and only at official prices set by the Government (Arts. 3 and 4). Any infraction of this or any other provision of the law is severely punished.

The control systems enacted in 1938 and 1939 ignored the existence of the local dealers, who have always played an important role in financing and marketing the farmers' crops. The failure of the monopolies to get the crops was partly attributed to their inactivity. However, even though their place is recognized now, their functions are carefully delimited. To begin with, they must be licensed and join an association, which is under close Government control. They have a right to buy produce at the exchange markets (Art. 5), but they must dispose of it only to the Manchuria Cereals Company (the monopoly) or to its buying agents (Art. 6). Also, they have no right to ship by rail or water within the country or import or export products, such functions being reserved for the monopoly alone. The local authorities in charge of the produce exchange are bound, by order of the Minister for Agricultural Development, to submit reports to the proper authorities on the volume of transactions and purchasing and selling prices.

To sum up, all farm products must be grown for and sold to the Government. Manchurian farmers are compelled to sell their output at the produce exchange markets, and these products may not be bought except at such markets. If producers do not voluntarily sell their output in the official markets, the Government may force them to do so, and may instruct its own monopoly officials to require reports on farmers' available stocks as well as to search their premises. Buyers are limited almost entirely to cooperatives and authorized dealers, who must in turn sell to the monopoly at a price fixed by the latter. In order to satisfy local consumption requirements (other than those of the producers) cooperatives and dealers must buy the requisite stocks from the monopoly and retail them at prices fixed by the Provincial Governors.

This major control measure was supplemented by others smaller in scope and with a view to closing any possible avenue of escape for the farmer. The regulation concerning the control of planting seed is a case in point. To prevent the farmers from holding back deliveries on the pretext that they needed them for seeding purposes, on November 13, 1940, the Department of Agriculture designated the monopolies as sole distributors of planting seed. Furthermore, it prohibited the use of planting seed other than that obtained from the monopolies.

Crime and punishment

The entire control system is constructed on a policy of coercing the farmer into parting with his products at low prices. Dealers, too, are now confronted with a series of restrictions which seriously affect their economic welfare. Under the circumstances, the temptation to disobey any or all provisions of the system is great. The penal clauses of the enacted laws have therefore been strengthened considerably. With the establishment of the produce exchange markets the degree of severity of the punishments reached a new high. Whether the punishments really fit the climes need not here be discussed; however, the following examples show the extent to which the Government must rely upon administrative measures as a means of achieving its aims.

Persons engaged in illegal importing and exporting or in attempts to import or export almost any agricultural product, or goods processed from such product, are subject to penal servitude of not less than one year and a fine not exceeding 100,000 yen ($23,400). For illegal shipments of agricultural products by rail or water, or an attempt to do so, the punishment is not less than six months in prison or a fine of not more than 50,000 yen ($11,700). A punishment of from six months to five years or a fine not exceeding 30,000 yen ($7,020) is provided for the purchase from producers by persons or companies other than those officially authorized, for the retail at prices above the fixed ones, or for infringements by dealers or processors of orders issued by the administrative authorities concerned. If the farmers or others holding stocks sell outside the produce exchange markets, or refuse to sell when ordered by the authorities, the punishment provided is a sentence of not more than three years in prison or a fine not exceeding 10,000 yen ($2,340).

One of the lightest penalties is intended for those who fail to secure official permission to build new rice mills or remodel old ones or who commit other acts without first securing permission from the proper authorities. In all such cases penal servitude is not to exceed one year or the fine 5,000 yen ($1,170).

ECONOMIC MEASURES

Supply of Manufactured Goods

Threats and punishments notwithstanding, the authorities realized that the farmers would retain more than their consumption needs required. To prevent such a development it was decided to organize in each district and village Committees for Investigation of Farmers' Production and Consumption. As the name suggests, it is the business of such committees to find out what the farmers actually produce, what their consumption requirements are, and what stocks are available for sale. To encourage such sales the committees offer as a bait the possibility of securing consumers' goods in the following manner: "... the Government sets a monthly quota of necessaries for each *hsien* or banner and changes the quota in relation to the volume of farm crops marketed. Ration cards are to be issued to the farmers and villagers. In other words, if the farmer doesn't sell his crops on the produce exchanges at official prices, he can't buy such manufactured goods as kerosene, cloth and matches."[33]

If the Government were in a position to distribute among the farmers a large volume of consumers' goods at low prices, it would do much to gain from them some degree of cooperation. But in reality the Government has little to offer, while prices of the small stocks available are very high. In the days before Manchuria was dominated by Japan, the country was exporting agricultural and importing manufactured products. This condition still holds true, but with an important difference. Before Manchuria passed the Exchange and Trade Control Laws (1937) with a view to aiding Japan, her exports were sufficient to pay for all her imports on a free-market basis. The enactment of these laws, however, restricted Manchuria's imports of manufactured consumers' goods to those from Japan, where prices are very high. They are even higher when the cost of transportation, other costs, and middleman's profit are added.

[33] Stewart, John R., "Monopoly Control of Agriculture in Manchuria," *Far Eastern Survey*, p. 78, April 21, 1941.

Moreover, when supplies of goods in Japan are as low as they have been in the past two or three years, Manchuria is in a position to import few goods even if able to pay the price. The Japanese law to control exports to the Kwantung Leased Territory, Manchuria, and China reduced the supply of goods still further. Hence the shortage, and the failure to appease the Manchurian farmers by a fair exchange of agricultural for manufactured products.

Bonuses

Another economic measure, and a more realistic one even though only moderately effective, is the bonus paid by the Manchurian Government for deliveries within certain specified periods. The bonus, or premium, which was to have effected speedier delivery of the 1940 crops, ranged from 10 to 30 percent of the official price, depending upon the product and the time of delivery. It was paid directly to the farmers when the crops reached the designated marketing organizations. The measure amounted to an advance in official prices, and as such it was hoped that it might discourage farmers from hoarding. The following tabulation shows the official prices of some of the leading agricultural products and the bonuses offered for timely delivery:[34]

	Official price revised on February 18, 1940 *Yen per 132 pounds*	*Bonus offered* *Yen per 132 pounds*
Soybeans, ex Dairen	7.43[1]	2.32 from October 1, 1940 to January 31, 1941. For crops in the Sungari Basin the later date is fixed at June 30, 1941 owing to usual late marketing.
Wheat, ex Harbin	11.50	1.20 before October 31, 1940. .60 from November 1, 1940 to January 31, 1941.
Rice, all stations	16.50 (per 220 lbs.)	1.80 before October 31, 1940. 1.20 before November 30, 1940. .60 before January 31, 1941.
Kaoliang, ex Dairen	6.70	1.20 from October 1, to November 15, 1940.[2]
Millet, ex Dairen	7.96	1.20 from October 1, to November 15, 1940.[3]
Corn, ex Dairen	6.90	1.20 from October 1, to November 15, 1940.[3]

[1] The official price is 8.50 yen packed in gunny bags, which cost 1.07 yen per piece.

[2] The Manchurian Government has recently authorized several Provinces to make a short extension of the period for paying bonus. The action seems logical as crops are not ready for marketing at the same time throughout Manchuria.

[3] *Manchuria Daily News*, Nov. 6, 1940.

The payment of bonuses brought about an upward revision of prices, both domestic and export. But Japan, the chief consumer of Manchurian agricultural products,

[34] Dawson, Owen L., *op. cit.*

was only partly affected by this development. The Manchurian Affairs Bureau in Tokyo has raised the soybean selling price. On the other hand, the bean-cake export price to Japan remained the same, even though the bonus added 25 percent to the official price. This was the result of a Yen Bloc Conference in Tokyo in August 1940. An increase in the price of bean-cake, so widely used in Japan as a fertilizer, would have raised the price of rice, thereby aggravating the already serious Japanese rice problem. The full difference, or at least part of it, between the actual price and that paid by Japan was made good by the Manchurian taxpayers. On August 22, 1940, in a supplementary budget the Government appropriated 5.5 million yen ($1,289,000) to be distributed as bonuses for produce delivered before November 15. Of course it was a case of robbing Peter to pay Paul, but what would not Japan have Manchuria do in order to strengthen Japan's economy, or to satisfy Japan's needs? After all, that is the underlying reason for agricultural control in Manchuria.

The bonus system for the 1941-42 crops has undergone a serious change. It does away with bonuses based on timeliness and actual deliveries; instead, it provides for the payment to the farmer, prior to the harvest, of a bonus of 1 yen for every 220 pounds which the farmers contract to produce and deliver to the monopoly. The volume is fixed on the basis of findings made by the so-called "Crop Production and Sales Urging Corps," sent to the villages by the authorities at the time of planting. The business of this organization also is "to undertake constant investigation and guidance of farm production for each village . . . to which it is detailed until the marketing."[35] When the report on the expected volume of production has been completed, a marketing quota is assigned to each village, the headman of which, after consultation with the farmers and upon his joint responsibility with them, enters into a contract with the cooperatives for the delivery of their quota at a specified market within a specified time.

Before harvesting commences the volume contracted for may be revised upward or downward, with the bonus adjusted accordingly. In case of crop failure the farmer will be excused from a corresponding part of his contract upon repayment of the bonus, but he must prove that failure to deliver the original volume is due to the poor crop and not to his unwillingness to sell to the monopoly. Sales not based on contracts will receive no bounty. The Manchurian Government has appropriated 75 million yen ($23,575,000) for the payment of bonuses on 8,268,250 short tons of farm produce. Of the total sum 30 million yen ($7,020,000) is for soybeans and the remainder for miscellaneous crops. On the whole, the revised bonus system aims to induce the farmer to plant more and to contract for the delivery of the whole of his commercial crop by offering a small cash advance.

Coincident with the revision of the bonus system was the announcement of new prices for the 1941-42 crops. Official prices for soybeans, wheat, rice, and perilla seeds were increased from 1 yen to 7.25 yen (23¢ to $2.51) per 220 pounds; prices were decreased in the case of millet and castor seeds, and remained the same for all other crops. The situation is somewhat different when account is taken of the total prices (official and bonus) the farmers are going to receive and those in force now. The new prices including bonuses are, for six of the ten products, higher than the total of the prices and bounty in effect now. Perilla seeds, wheat, and rice, in the order

[35] *Manchuria Daily News*, April 8, 1941.

named, show the largest increase, as a result of the desire on the part of the authorities to increase not only the sales but also the production of these crops. The total price of soybeans and castor seeds remains the same, while that of kaoliang and corn is actually reduced.

The success or failure of the revised bonus system and prices will depend not only on the cost of production, but primarily on the farmers' cost of living. If prices should prove insufficient, the farmers are likely again to find ways and means of evading, to some extent at least, the rigid government control over their output.

APPRAISAL AND CONCLUSIONS

The cooperatives, the produce exchange markets (which are, in effect, the center of Manchuria's control system), and a host of other restrictions would not have been enacted in 1940 but for the failure of the earlier control schemes. All possibilities for private sales seem to have been excluded - unless the participants want to brave abnormally high fines or imprisonment - and there is not a single commercial product that the farmer does not have to turn over to the Government at a fixed price. The question now arises as to the efficacy of the new crop of measures. Has it, with its punishments on the one hand and bonuses on the other, caused the farmers to move their crops to market in increased volume, or has the vicious circle of more-control: less-goods been continued by their offering still less products for sale?

No clear-cut answer can be given because of insufficient information on deliveries. Official reports, rather general in character, maintain that the volume of the 1940-41 crop sales was larger than that of 1939-40. Yet a number of factors, other than fixed prices, indicate that the problem of making farmers deliver to the monopolies the commercial crop of 1940-41 and the one forthcoming is yet to be solved.

The "black market" is still in existence, and so is smuggling to North China. Many farmers aim to sell to the monopolies only enough to obtain cash for taxes and for such necessary items as they may be able to find on the local market. They retain an abnormally large proportion of their crops for their own consumption, part of them serving as substitutes for foodstuffs normally imported, such as wheat, wheat flour, vegetables, fruit, sea food, and sugar.

Agricultural production, an integral phase of Japanese economic plans and control schemes, has shown no sign of expansion. The official 1940-41 crop estimate places the total output at 19.8 million short tons, or 5 percent less than the 1939-40 crop, and there is reason to believe that the crop is smaller than the indicated figure. In addition, the official estimate anticipated a decline of 3 percent in soybean production, 8 percent in wheat, and 15 percent in rice, as compared with an increase in the production of kaoliang, millet, and corn amounting to 3, 11, and 23 percent, respectively. Although official estimates place the soybean output at 141 million bushels, unofficial estimates give the output at not more than 118 million, or 20 percent less than that of 1939-40. The decrease was in crops in which Japan was especially interested and over which the most stringent control had been established. The distrust of Manchurian currency, which can buy few goods even at high prices, is another element not conducive to expansion of agricultural production or to eagerness on the part of farmers to deliver crops to the monopolies - optimistic official statements notwithstanding.

Appeals to patriotism and the use of the police force as a means of enforcing official prices and restriction schemes are more effective in Japan or Germany than in Manchuria. The population, largely Chinese, cannot respond to pleas for sacrifices so that the military power of the Japanese Empire may be strengthened. They are generally concerned with prices and their purchasing power; moreover, since the inauguration of the control system they have become much concerned with the effects of the so-called "scissors" problem, or the price disparity between manufactured goods and the products of the village. Thus products sold by farmers in March 1941 showed a decrease in the price index of 6.4 percent within one month and a decrease of 16.5 percent in the course of one year, whereas goods purchased by farmers increased, within similar periods, by 5.5 and 23.1 percent, respectively.

The net effect has been a sharp decline in agricultural exports. Prior to 1940, before control of Manchurian agriculture became effective, Manchuria had a large surplus of foodstuffs upon which Japan could rely. From 1935 through 1938 Manchurian food exports increased from 1,647,264 short tons to 2,508,403, and then declined to 1,893,781 in 1939. Figures for the full calendar year 1940 are not available, but during the first 9 months of the year, the first year in which full control was attempted, exports declined to 1,025,000 tons, as compared with 2,661,000 during the first 9 months of 1939. In the same period Manchuria's excess of food exports over food imports declined from 1,921,300 short tons to 460,760. Since soybeans and soybean products constitute Manchuria's leading export crop, the exported volume of these products is especially revealing. In 1939-40 (October-September)[36] Manchuria exported a total of only about 50 million bushels of soybeans (bean cakes and meal in terms of soybeans), as compared with 113 million in 1938-39.

The decline of food exports, especially of soybeans and bean products, affects Japan's food supplies adversely. Aside from the direct use of soybeans for food, probably the most important soybean product from the viewpoint of diet is bean curd, the main source of protein for the great majority of the Japanese urban population. In 1939-40 Japan was able to get only 35 million bushels of soybeans (including cake and meal), as compared with 52 million the previous year. The 1940-41 crop is unofficially estimated to be the smallest in 14 years, while Manchurian consumption is likely to be much larger in consequence of the augmented use of soybeans in lieu of wheat flour, which is difficult to obtain. It may be assumed, therefore, that during 1940-41 Japan will have to contend with a volume as small as, if not smaller than, that of 1939-40, despite a planned record import volume of 84 million bushels.

To this must be added the indirect effects on Japan's food supply brought about by Manchuria's inability to export to Chosen millet and kaoliang in sufficient quantities. The result was that Chosen was in no position to spare a correspondingly larger proportion of its rice crop for exportation to Japan. This development was attributed not only to an increase in domestic consumption due to the wheat-flour shortage, but also to the farmers' unwillingness to sell at the low official prices offered them.

On the whole, reviewing Japan's agricultural efforts in Manchuria during the past ten years, one is forced to the conclusion that to date the returns have been very meager. The uneconomic basis of the colonization movement, its slow progress, and its drain upon Japan's already strained financial resources, have resulted in

[36] Estimated on basis of 10 months' returns.

neither relief of pressure on land in Japan nor expansion of agricultural production in Manchuria. If Manchurian agricultural expansion had been the only aim - if political and military considerations had not been superimposed upon purely economic motives - Japan could have augmented Manchuria's output considerably by lifting the bars against Chinese immigration. The history of the economic development of Manchuria during the first three decades of this century clearly shows that such a course would have provided the surer and less expensive approach.

The second half of the program, and one that from the Japanese point of view calls for immediate solution, consists of obtaining a large supply of Manchurian foodstuffs at a minimum cost. In actual practice the two aims came to be mutually exclusive. At the prevailing prices of consumers' goods, of which Japan is now Manchuria's sole source, Japan could get a large supply of foodstuffs, at high prices. But Japan insists on cheap foodstuffs, which it can acquire in limited quantities only, and only by imposing a thoroughgoing control over Manchuria's entire agricultural economy. A fair exchange of goods, therefore, is hardly possible, for it would negate Japan's policy of receiving from the farmers as much as possible and giving in return as little as possible.

In no measure contrived by the Japanese for the control of Manchurian agriculture are the interests of the 30 million Manchurian farmers recognized. Although strenuous efforts have been made and considerable sums spent to bring Japanese agricultural settlers into Manchuria, nothing concrete is being done to encourage the agricultural industry carried on by the native Chinese farmers. From the standpoint of increasing the agricultural output, the welfare of farmers and of the nation, and incidentally the State's revenue, mere paper plans are of no value. Nor will coercion stimulate the farmers to greater efforts. Some Japanese are fully aware that the control schemes cannot bring about the desired results. "It is quite clear," one of them noted, "that it is impossible to attain the object of developing Manchuria by ignoring the existence of the Manchus or without getting their cooperation."[37] But the Manchurian agricultural state monopolies behave in exactly the manner condemned by Mr. Ishibashi. As long as they continue in this course, they will neither benefit the Manchurian farmers nor help Japan to turn Manchuria into a leading source of cheap foodstuffs.

[37] Ishibashi, Tanzan, *op. cit.*, p. 301.

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TEA REGULATION . . . . .

By Lois Bacon*

Two-thirds of the tea traded internationally is produced and consumed within the British Empire. Control by the British Government toward the end of the war of 1914-1918 was followed by sporadic attempts on the part of producers to support prices. A long-term agreement, which subjected most British and Dutch tea to export control, was concluded early in 1933. This agreement has remained in force during the present war, which has again brought a large part of the tea trade under the control of the United Kingdom.

CHARACTERISTICS OF THE TEA INDUSTRY

The tea plant is an evergreen that begins to bear at about 3 to 4 years of age and continues bearing for about 30 years. Thus production capacity cannot be quickly expanded or contracted. Market supplies, however, can be restricted without storing or destroying tea. Fine plucking - that is, picking only the bud and the two youngest leaves of the tea shoot - will reduce yields, improve the quality of the tea, and encourage the growth of new tender shoots. "Coarse plucking includes shoots which are large, generally shoots of more than two leaves and a bud, and *bhanji* or dormant shoots."[1]

Cultivation is centered in the Far East, where plentiful labor supplies, together with an advantageous climate, favor production. Output in China, by far the greatest producing country, is largely for domestic consumption, as in Japan. India, Ceylon, and the Netherlands Indies, on the other hand, consume but a small proportion of their tea output, which is destined principally for western markets. These three countries together supply about four-fifths of primary tea exports, less than one-fifth originating in China and Japan (including Taiwan).

The concentration of so large a proportion of production for export in only three countries that are highly dependent on offshore markets facilitates the reaching of an agreement to regulate exports. Moreover, the number of tea producers in India, Ceylon, and the Netherlands Indies is relatively small. Most of the tea is grown on European-owned estates, whose joint interests are served by Tea Associations. The not insignificant native output in Java can be partly controlled, since the tea leaves destined for export are generally processed in estate factories.

With a low elasticity of demand for tea, there is also the promise of substantial benefits to be derived from export restriction. The comparatively slight influence of price increases on consumption makes tea taxes good revenue-producers. Tea duties, often very high, are imposed in nearly all countries other than the United

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1 Harler, C. R., "The Culture and Marketing of Tea," p. 66, Oxford University Press, 1933.

States. The tea exporting countries, however, do not lave to face the prospect of the development of production in the major importing countries, except for the Soviet Union. Seven countries take four-fifths of world tea imports. More than half the total goes to the United Kingdom alone, London serving as a center of the tea trade. But though Britain ordinarily reexports almost as much tea as is imported by the United States, which ranks second, British net imports constitute half of world net imports. The United States accounts for about one-tenth. Her imports are somewhat smaller than those of Australia, Canada, and Eire combined, but exceed those of the Soviet Union and the Netherlands.

The habit of tea-drinking not only gives stability to demand but limits the competition between strong black teas, green teas, and China teas, which are not generally mixed in the blends sold at retail. Strong black teas are manufactured in India, Ceylon, and the Netherlands Indies; different methods of preparing the leaves, employed in China and Japan, yield the more delicate black teas, oolongs and green teas. Insofar as consumers and producers fail to shift from one sort of tea to another in response to changes in price relations, supply control need not cover the entire output to be successful.

The blender's demand for the different qualities of black tea, however, is sensitive to changes in their price relations. "The main ground for tea blending is simply the necessity of supplying a demand for tea of uniform quality at a staple price."[2] The cost of the blend may be kept stable when prices are rising by increasing the proportion of common, cheaper teas used, and when prices are falling by using more of the finer, dearer teas. "Provided that the blender does not over-do it to the extent of reducing too much the proportions of those teas which give flavour and quality to the blend, the change is not noticeable to the consumer. This use of the 'filler' plays an important part in the month to month variations in proprietary blends, the quantity introduced varying with the price of the other teas."[2]

The finest teas are produced at high altitudes, where the growth of the young shoot is slow. Other uncontrollable factors determining quality include soil and rainfall. But quality is also dependent on the systems of cultivation and plucking employed, and on the treatment of the leaf in the factory. Although the plucking is done by hand, the preparation of the leaf in India, Ceylon, and the Netherlands Indies - withering, rolling, fermenting, firing, sorting, packing - has been mechanized for many years.

EARLY REGULATION

Wartime Control, 1917-1918

Government control over a large part of the modern world trade in tea was first exercised toward the end of the war of 1914-1918, when the United Kingdom undertook to provision the civilian population.

During the first war years, trade restrictions failed to prevent an expansion of the tea trade. The markets shut off by the blockade were not important outlets for tea. Consumption in other countries showed an increase. Imports into the United

[2] *Reports of the Imperial Economic Committee, Eighteenth Report, Tea*, p. 28, London, 1931.

Kingdom were substantially higher during 1914-1916 than the average for the preceding five years. As the problem of shipping space grew acute, however, the United Kingdom instituted general control over imports. In 1917 British imports of tea, classed among "luxury foodstuffs and drinks" were heavily reduced to 241 million pounds, as compared with an average of 397 million in 1914-1916; practically all came from Empire countries, for imports of foreign growths were prohibited. Though stocks were drawn upon, tea supplies became scarce.

The shortage of tea was only temporary. Late in 1917 the Food Ministry became the purchaser of British tea supplies. Contracts were made with Indian and Ceylon growers at fixed average prices. British imports in 1918 were increased to 464 million pounds, permitting a tea allowance of 2 ounces per customer and the rebuilding of stocks. After February 1918 a single blend of the various teas, known as "National Control Tea" was sold to consumers at a fixed price.[3]

The rigid control over more than half of world trade in tea lasted about a year and a half. The United Kingdom abandoned regulation of consumption in December 1918, and of retail prices and distribution in March 1919, though tea was not put to auction until the first week in May. The last government contracts with growers expired on May 31, 1919, and the British market was again opened to foreign-grown teas, which, however, had to pay higher duties than Empire teas beginning in June 1919. The license system for reexports was not removed until the following year.

Voluntary Restriction, 1920-1921

World tea exports, which had contracted abruptly in 1918, recovered strongly in 1919; they again substantially exceeded the average for the five pre-war years. As the shipping situation improved, stocks formerly accumulated in producing countries could be exported. Black tea production was at a high level. The area under tea had been expanded in India and the Netherlands Indies, and new plants were coming into bearing, while more intensive cultivation in these countries and Ceylon had raised yields. British wartime tea control had also stimulated Empire supplies. The contracts for the 1918 crop called for two-thirds of the output without limiting the absolute quantity or specifying the quality, so that planters were encouraged to adopt a policy of coarse plucking.[4]

These large supplies might have been readily absorbed had the tea industry regained all its pre-war markets. But sales to Russia, which during 1909-1913 had taken one-fifth of world tea imports, remained negligible for a time even after the Allied blockade was lifted in January 1920. The increase in consumption in some countries, notably the United Kingdom, was not sufficient to offset the loss of the Russian market, and takings of the United States and continental Europe were lower than before the war. Stocks in bond in the United Kingdom, 135 million pounds at the end of 1918, amounted to 213 million a year later, and continued to accumulate. Prices, especially of common teas, broke in 1920.

Low prices and mounting stocks led the Indian and Ceylon Tea Associations to recommend restriction of output, in which the Netherlands Indies was invited to join.

[3] Beveridge, Sir William H., *British Food Control*, p. 176, New Haven, 1928.

[4] Maclaren, W. A., ed. and comp., *Rubber, Tea and Cacao*, pp. 136-137, Resources of the Empire Series, London, 1924.

The plan for the 1920 crop, generally accepted, offered planters a choice between reducing production to at least 90 percent of the average for 1915-1919 or ceasing to pluck on November 15, 1920.[5] The proposed reduction of the 1921 crop to 80 percent of the 1915-1919 average failed to secure the adherence of 85 percent of the industry, the stated prerequisite for its adoption. Nevertheless, many planters pursued a policy of fine plucking. Exports from India, Ceylon, and the Netherlands Indies, over 700 million pounds in 1919, fell to less than 600 million in the next three years. By the end of 1922 stocks in bond in the United Kingdom had been reduced to 170 million pounds, and prices had recovered markedly, averaging 15.10d. (27.2 cents) per pound for the year.[6]

The Period 1922-1929

During the twenties consumption moved steadily upward. The Soviet Union appeared in the tea market, though purchases remained far lower than Russian imports before the war. Sales in continental Europe improved as currencies were stabilized. Consumption in the United Kingdom rose to still higher levels. Imports increased in a number of other countries such as New Zealand, the Union of South Africa, Egypt, and French Morocco.

At first planters, especially in Ceylon, continued the policy of fine plucking, but as prices and profits soared coarse plucking was encouraged. In 1924 annual average prices reached a high of 19.79d. (35.6 cents). Exports in that year increased substantially, and year-end stocks in bond in the United Kingdom mounted to 199 million pounds.

During the first three quarters of 1925 prices showed an almost steady decline. Attempts were made to support the market when the Indian and Ceylon Tea Associations agreed to restrict offerings at London auctions for a short period in the spring, and later in the year when many members of the Indian Tea Association agreed to keep output at either the 1923 or 1924 level.[7] Unfavorable weather in India, however, made artificial restriction unnecessary, and was the primary cause of the sharp rise in London prices during the last months of the year, leading to an inquiry into wholesale tea prices.[8]

Prices remained at high levels in the next two years, averaging 19.34d. (38.7 cents) in 1926 and 19.01d. (38.0 cents) in 1927. Production increased faster than consumption, however. Stocks in bond in the United Kingdom totalled 239 million pounds at the end of 1927. In the following year prices dropped to an average of 16.73d. (33.5 cents), and fell still lower in 1929, when stocks showed a further accumulation.

The Voluntary Agreement of 1930

Faced with declining prices and rising stocks, the producers' associations of India, Ceylon, and the Netherlands Indies agreed to restrict production in 1930. Under

[5] *The Economist* (London), p. 504, October 2, 1920.

[6] Unless otherwise noted, prices are the average for teas sold at London auctions. China teas are sold privately. Pence are converted into cents at the annual average rate of exchange.

[7] *Report by the Food Council to the President of the Board of Trade on Wholesale Tea Prices*, pp. 7, 20, and 21, London, 1926.

[8] *Ibid.*

the agreement, estates producing poorer-quality teas were to restrict output more than estates producing better qualities; the percentage reduction from the 1929 level varied inversely with average prices at London auctions in 1926-1928, being as little as 3 percent for estates whose teas sold for more than 21d. (42 cents) and as much as 15 percent for estates whose teas sold for less than 17d. (34 cents). The plan for the Netherlands Indies also included a reduction in the amount of leaf bought from natives for manufacture on estates.[9]

The agreement did not work out as planned. Exports from Ceylon, whose teas average highest in price, fell by slightly more than 3 percent. But exports from India dropped less than production, a boycott helping to reduce domestic consumption and release more tea for export. That exports from the Netherlands Indies, whose teas are the cheapest, showed scarcely any decline was laid to the shipment of uncontrolled native tea by Chinese merchants.[10] Thus, instead of the anticipated decrease of 57½ million pounds, exports from the three countries were reduced by 41 million. Nevertheless tea prices, averaging 15.24d. (30.9 cents) in 1930, fell much less than prices of most agricultural products.

Negotiations for a renewal of the agreement in 1931 were not successful. World exports showed little increase in that year because of the temporary contraction of shipments from India. In 1932, however, they recovered strongly, whereas consumption, which had been well maintained, showed a decrease. The decrease in consumption may have been more apparent than real, since there is no indication of the movement of invisible stocks. But visible stocks reached record levels, and prices sank to a low of 9.45d. (13.4 cents).

THE INTERNATIONAL TEA AGREEMENT

The depressed state of the tea industry brought a resumption of negotiations for supply control. On February 19, 1933, the International Tea Agreement, which received overwhelming support from the industry, was signed by the Tea Associations of India, Ceylon, and the Netherlands Indies. In contrast to previous occasions, the conclusion and carrying out of the agreement were subject to the approval of the governments concerned and to the passing of legislation necessary to enforce it. Shortly thereafter such legislation was enacted.

The Agreement, effective for five years beginning April 1, 1933, and later extended for another five-year period, provided for the limitation of planting and for the control of market supplies at the point of exportation instead of, as formerly, at the point of production. But it was recommended that as far as possible the production of each country be adjusted so that it would not in any regulation year exceed its local consumption plus the quantity it was entitled to export. The agreement as extended to 1938-1943 contained a new clause providing that "if the production of tea in any of the producing countries is greatly in excess of the amount which it is entitled to export plus its requirements for local consumption, such country shall without delay take all such steps as it may deem necessary to restrict such excess production."

[9] *Reports of the Imperial Economic Committee, Eighteenth Report, Tea,* p. 45, London, 1931.
[10] *Ibid.*, p. 46.

Restrictions on Planting

Under the Agreement no extension of acreage was to take place except in special cases where the existence of the estate would otherwise be imperiled. Replanting was permitted on virgin soil during the first two regulation years, but subsequently was confined to areas where bushes had been uprooted. The governments agreed not to sell or lease more land for tea production, or to allow tea growers to utilize land then under other crops. In no case was the total planted area in each territory to expand by more than one-half of 1 percent, though special arrangements were made for nurseries. The export of tea seeds and slips was prohibited.

Control of Exports

Export quotas were to be fixed in terms of a percentage of "standard exports"; that is, the maximum export from each country in any of the three years 1929-1931. Indian and Ceylon exports were highest in 1929 (382.6 and 251.6 million pounds, respectively) and Netherlands Indies exports in 1931 (173.6 million pounds). The standard for India was adjusted downward in 1935 when, except for shipments to Iran, which were placed under license, exports by land were given the status of domestic consumption; and was adjusted upward in 1938 after the separation of Burma from India, the final figure being 383.2 million pounds. Thus, total standard exports amounted to 808.4 million pounds.

For the regulation year April 1933 to March 1934, the export quota was set at 85 percent. Thereafter it was to be determined by the International Tea Committee, on which India had 38 votes, Ceylon 25, and the Netherlands Indies 17. In fixing the quotas, due consideration was to be given to stocks and prices. According to the recommendations unanimously adopted at the meeting of the Tea Associations on March 30, 1933, consideration was also to be given "to the fact that it is not the intention of the parties to this agreement that the operation of this scheme should cause prices to rise exorbitantly."

Each country instituted control of exports by a licensing system. Planters' export quotas, which were transferable, were allotted on the basis of past production, with an allowance for immature bushes. The basic production quota ("crop basis" in India, "standard crop" in Ceylon, and "standard production" in the Netherlands Indies) was calculated differently in each country, the total for the three increasing from 985 million pounds for 1933-34 to 1,059 million for 1937-38. Special measures were taken in the Netherlands Indies to ensure native producers their share in the export quota.

Licensed exports never equalled the permitted exportable amount (quota plus carry-over minus unissued or cancelled export licenses) except in India in 1935-36. Smuggling, however, was for a time a problem in the Netherlands Indies and continued to be a problem in India. Under the new agreement the governments of the producing countries were asked to cooperate with each other to prevent smuggling, evasion, and other abuses of regulation.

New Members

The International Tea Committee endeavored to secure the adherence to the agreement of other producing countries, without success in the case of China, Japan,

Burma, Southern Rhodesia, and Indochina, where France encouraged tea production. But Kenya, Uganda, Tanganyika, Nyasaland, and British Malaya undertook to limit the expansion of the area under tea, and the first four of these territories agreed to control exports in 1938-1943, the export quota applying to estimated potential production in each year.

Tea Propaganda

The need for expanding outlets was recognized by instructing the Committee to investigate ways and means of increasing tea consumption. As a result of the Committee's report, the International Tea Market Expansion Board was established on a cooperative basis in 1935 to coordinate and intensify tea propaganda in overseas markets. Such propaganda had been carried on for many years by India, and for shorter periods by Ceylon and the Netherlands Indies. Propaganda in the home market, to which an increasing amount of attention had been paid after the war of 1914-1918, was left in charge of the organizations in each producing country. Funds for the work were secured through a propaganda cess, or tax, on tea.

The Market Under Regulation

In 1933, though consumption apparently continued to decline, prices recovered to an average of 11.70d. (21.1 cents), and stocks in bond in the United Kingdom fell from 309 million pounds to 288 million. In view of the improvement, the Tea Committee increased the quota for 1934-35 to 87½ percent. But consumption again showed a drop, prices declined in the latter part of the year, and stocks again began to accumulate.

An export quota of 82½ percent for 1935-36 and 1936-37 brought a substantial reduction in world exports. By the end of 1936 stocks in bond in the United Kingdom had shrunk to 236 million pounds, and they continued to fall in the succeeding year, when apparent consumption recovered strongly and prices rose to an average of 15.18d. (31.9 cents). The Tea Committee, operating on the principle that "supplies must anticipate demand and not follow it," raised the export quota for 1937-38, originally continued at 82½ percent, to 87½ percent in May, and the quota for the following regulation year was raised still higher to 92½ percent. With larger supplies and no increase in consumption, prices weakened in 1938, averaging 14.38d. (29.3 cents). For 1939-40, the export quota was lowered to 90 percent.

WARTIME CONTROL, 1939-1941

Shortly after the outbreak of the present European war, more than half of world trade in tea again passed under the direct control of the United Kingdom. By orders dated September 5, 1939, the Government took over all stocks and supplies, prohibited the buying and selling of tea except under license, and placed a ceiling on domestic wholesale and retail prices. Shortly thereafter the Food Controller undertook the purchase of tea from growers at fixed prices. Control over tea exports from the United Kingdom was relaxed on September 18, 1939, and over domestic prices on January 29, 1940. But price ceilings were reestablished in July 1940 when tea was rationed, customers being allowed 2 ounces per week. In January 1941 exports once more became subject to license.

The first British contracts for Empire teas, placed in September 1939, covered the remainder of the regulation year 1939-40. Prices in producing countries, which had commenced a sharp rise in August, continued to increase, since other countries were also endeavoring to build up stocks. To allow for the British purchases and for possible loss of tea by enemy action, the Tea Committee in October raised the export quota to 95 percent.

Early in 1940 the British Government arranged long-term contracts for the coming season. Purchases included 493 million pounds of teas from India and Ceylon - 80 percent of their "standard exports" and about 24 million pounds in excess of British consumption in 1939. Each company was paid the average price it had received in the three years 1936-1939, plus 1d. per pound for Indian and 1½d. per pound for Ceylon teas to cover increased costs.[11]

With the occupation of Western Europe in May-June 1940, tea prices weakened, especially in the Netherlands Indies. In July the British Government agreed to buy 40 million pounds of Netherlands Indies tea (23 percent of "standard exports") for delivery in 1940, at a price of 7.25d. (12.3 cents at the official rate of exchange) f.o.b. Batavia. In the same month the Tea Committee, which had left the export quota at 95 percent, lowered it to 90 percent. Prices recovered so strongly that in October the quota was increased to 92½ percent.

In 1941 British purchases were reduced. Although contracts were made with the Netherlands Indies for 48 million pounds at the increased price of 10d. per pound (17 cents at the official rate of exchange), contracts with India and Ceylon called for but 410 million pounds, at prices the same as in the old contracts. Additional purchases of 27 million pounds in British East Africa and 2 million from other countries brought the total to 487 million, as compared with 565 million under the former contracts.[12] The Tea Committee at first lowered the export quota for 1941-42 to 90 percent, but raised it in May to 95 percent.[13]

CONCLUSION

Under the International Tea Agreement the tea industry enjoyed a substantial degree of prosperity. The higher prices obtained undoubtedly put some check on consumption, which was also burdened with heavier taxes in many countries. In the United Kingdom the duty on tea, abolished in 1929, was reintroduced in 1932 and raised several times after 1935. Nevertheless, the low elasticity of demand of tea means that restriction of supplies "will cause a rise in the price of the commodity such as will attract a greater volume of receipts after allowing for the effect of the decline in demand."[14]

The effectiveness of supply control has as yet been little diminished by the development of outside sources of supply. Exports from India, Ceylon, and the Netherlands Indies, which constituted 81.3 percent of total exports from producing countries

[11] *The Statist*, p. 158, Feb. 22, 1941.

[12] *The Statist*, p. 178, March 1, 1941.

[13] *The Journal of Commerce*, New York, May 29, 1941.

[14] Broster, E. J., "Elasticities of Demand for Tea and Price-Fixing Policy," *The Review of Economic Studies*, vol. VI, no. 3, p. 173, June 1939.

in 1924-1928 and 84.2 percent in 1929-1932, still accounted for 79.5 percent in 1937-1938. The combined share of China, Japan, and Taiwan in the same three periods was 18.3, 15.4 and 17.6 percent, respectively.[15]

Common teas showed a much greater recovery in price than fine teas. With rising prices a shift in blenders' demand to the cheaper teas was to be expected, and the regulation of exports prevented the demand from calling forth larger supplies such as appeared in the latter years of the twenties.

During the first five years of regulation, permitted exportable amounts averaged 708 million pounds, or 68.7 percent of the combined production quota of India, Ceylon, and the Netherlands Indies. Excess capacity was not so great as would appear from the above figures, for producers also had an outlet in the home market. Domestic consumption of tea in the three great exporting countries is estimated to have about doubled between 1932 and 1938, amounting in the latter year to around 130 million pounds.[16] During the same period tea imports into India and the Netherlands Indies fell from 9.8 million pounds to 3.5 million; imports into Ceylon were negligible.

Nevertheless there remained a considerable gap between consumption and potential production. The industry's hopes of closing the gap rested on "continuous and intensive propaganda of every description for the purpose of opening out new markets and extending those already in existence."[17] The nature of the demand for tea under normal circumstances, however, would seem to preclude quick results. Through 1938 apparent consumption of tea outside the major exporting countries had failed to reach the high levels prevailing in 1929-1932. Actual yearly consumption may have showed less change between the periods 1929-1932 and 1933-1938 if invisible stocks were accumulated in the early part of the depression and drawn upon in the first six years of regulation.

That the demand for tea became stronger in the beginning years of the present European war appears to have been due largely to the desire to build up stocks. Consumption must have dropped, at least in the middle of 1940, when the number of countries cut off from tea supplies became larger than in 1914-1918 and when tea was rationed in the United Kingdom at the rate of 6½ pounds per year, as compared with a pre-war per capita consumption of about 9 pounds. Once stocks have reached the desired levels, and unless consumption recovers, the demand for tea may be expected to weaken. Should transportation difficulties or other wartime trade barriers prevent the maintenance of stocks in importing countries and compel further restriction of consumption, a severe downward adjustment of production may be necessary to prevent the accumulation of stocks in producing countries. Under the International Tea Agreement, however, the industry is better prepared to cope with the problems arising than are producers of most other agricultural commodities.

[15] International Tea Committee, *Monthly Bulletin of Statistics*, London.

[16] *Report of the International Tea Committee, 1st April 1938 to 31st March 1939*, p. 31.

[17] *Report of the International Tea Committee, 1st April 1937 to 31st March 1938*, p. 6.

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